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Research Article

A Thyroglossal Cyst Presenting in an Elderly Man-A Rare Presentation

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ABSTRACT
Thyroglossal cysts are indeed more commonly diagnosed in children and young adults, typically before the age of 20. However, they can occur at any age, including in the elderly population, although it's relatively rare. We present a case of a 75-year-old came with swelling in front of neck since 1month, initially of 2x1cm in size progressed to 6x4cm with no h/o pain over the swelling, recent trauma, fever.

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INTRODUCTION

The thyroid gland originates at the foramen cecum of the tongue, around fourth week of gestation, a ventral diverticulum of the foramen cecum is formed from the first and second pharyngeal pouches.[1,2] This diverticulum, with its narrow neck connected to the tongue, descends in the midline of the neck as the thyroglossal tract to the position of the normal thyroid in the base of the neck, where the thyroid lobes separate, by the seventh week. The path of descent is usually anterior to the hyoid bone, but may be posterior to or through the bone, and ends on the anterior surface of the first few tracheal rings.[3] The tract usually atrophies and disappears by the tenth week of gestation, but remnants of the tract and thyroid tissue associated with it may persist at any location between the tongue and the thyroid. A thyroglossal duct cyst arises as a cystic expansion of a remnant of the thyroglossal duct tract. The stimulus for the expansion is not known; one theory is that lymphoid tissue associated with the tract hypertrophies at the time of a regional infection, therefore occluding the tract with resultant cyst formation.[4]

In elderly individuals, the diagnosis of a thyroglossal cyst may present some challenges due to the fact that other conditions, such as thyroid nodules or lymph node enlargement, are more common in this age group. However, imaging studies such as ultrasound or CT scans can help in the diagnosis by delineating the cystic nature of the lesion and its relationship to adjacent structures. The treatment of thyroglossal cysts usually involves surgical excision of the cyst along with the tract and any associated adjacent thyroid tissue and central part of hyoid bone.[5]

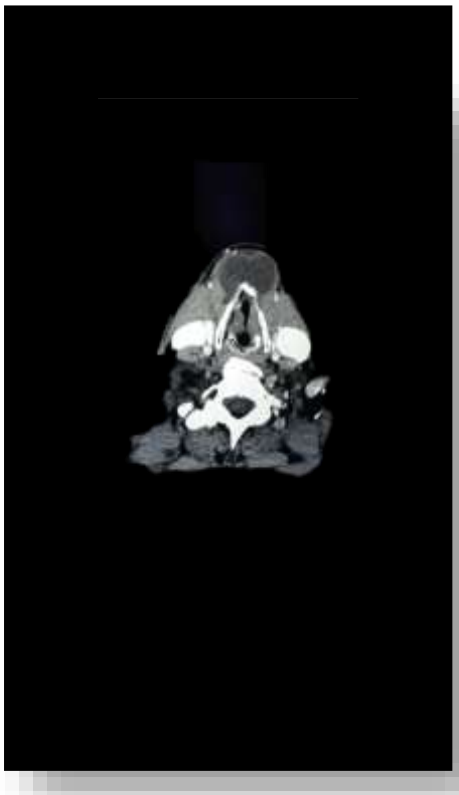
Overall, while thyroglossal cysts are less common in the elderly population compared to younger individuals, they should still be considered in the differential diagnosis of midline neck masses in this age group, especially when other common causes have been ruled out.

CASE PRESENTATION

A 75-year-old came with swelling in front of neck since 1month, initially of 2x1cm in size progressed to 6x4cm with no h/o pain over the swelling, recent trauma, fever. Patient is a known case of hypothyroidism since 10years and is on Tab Thyroxine 25mcg OD. No h/o hypothyroidism/hyperthyroidism at present. On examination- A 6x5cm swelling is seen in the front of neck which moves up with deglutition and moves with protrusion of tongue. Skin over the swelling is normal.

USG NECK showed 4x3.4cm lesion in the midline and right paramedian location in infrahyoid region of neck superior to thyroid gland with few septations,fine internal echoes and echogenic debris within the cyst and vascularity along the periphery and septations.

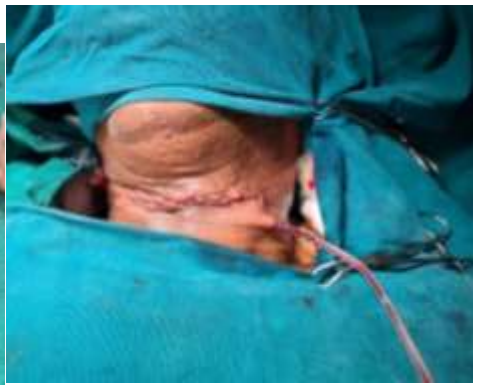
CECT NECK showed a well defined para midline fluid density lesion measuring 3.8x2.5x3.2cm with few internal septations noted extending from the upper end of C4 to lower end of C6 vertebrae, anterior to thyroid cartilage reaching up to hyoid bone, abutting the inner cortex of hyoid with maintained fat planes.

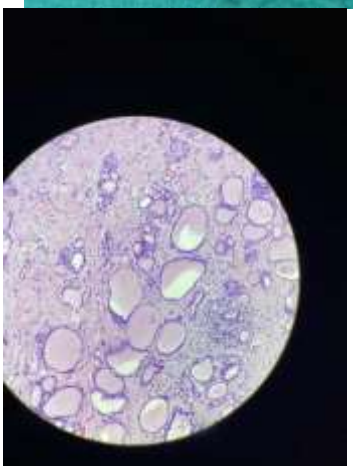


Patient underwent SISTRUNK procedure where thyroglossal cyst and thyroglossal tract was excised upto hyoid bone along with central part of hyoid bone. Patient tolerated procedure well.

Histopathology findings were consistent with thyroglossal duct cyst.







DISCUSSION-

Thyroglossal duct cysts (TGDCs) typically present in children and young adults, making their occurrence in elderly patients, as seen in this case report, particularly rare. This unusual presentation underscores the importance of considering congenital anomalies in the differential diagnosis of neck masses in older adults.[1,2]

The pathophysiology involves remnants of the thyroglossal duct, which may remain asymptomatic for decades, only becoming apparent due to cyst enlargement, infection, or other factors in later life. In elderly patients, the differential diagnosis includes a range of conditions, including malignancies, which can complicate the clinical picture. Imaging, particularly ultrasound, is crucial for diagnosis and surgical planning, while fine needle aspiration cytology (FNAC) may assist in ruling out malignancy.[3,4,5]

The primary treatment for TGDC is the Sistrunk procedure, which involves the excision of the cyst, the middle portion of the hyoid bone, and surrounding tissue to minimize recurrence. Despite the rarity of TGDC in the elderly, the risk of complications such as infection or malignant transformation, though low, necessitates careful management.

CONCLUSION-

Sistrunk procedure is indeed the standard surgical approach for the treatment of thyroglossal duct cysts (TGDC). This procedure involves excising the cyst along with the central portion of the hyoid bone and any associated duct remnants to reduce the risk of recurrence.

Even in the extremes of age, the management of thyroglossal cysts can follow standard protocols, including diagnosis through imaging studies and surgical treatment with the Sistrunk procedure. By adhering to established guidelines and surgical techniques, healthcare providers can effectively manage thyroglossal cysts and achieve favourable outcomes for patients across different age groups.

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